



Sometimes sedimentation, sometimes erosion and sometimes stabilization - The nature of (continuous) archives

Dominik Faust

Institute of Geography, University of Technology Dresden, Dresden, Germany

It is well-known that terrestrial sedimentary archives were built up by different processes that result in different features. Precise datings help to understand the formation of these features in time, even if the causes of the processes could be manifold. Because of convergence and/or divergence phenomena the use of analogy to explain cause and effect relations is not always useful. Interpretation of dune-paleosol-sequences on the Canary islands or loess deposits in Germany strongly depends on precise time control. However, when deposition was interrupted by stabilization or even by erosion, precise datings of these events are a challenge. This contribution aims to discuss the possibility to interpret such archives in terms of duration of different processes that contribute to the formation of the archive regardless of the precision of time control. Using geochemical and biological data and based on a rough time frame, duration of soil formation vs dune formation is discussed.